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AUTHOR	Kirkman, Chris; Frady, Allen; Walz, Garry R.
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ABSTRACT

Counselors and educators face a constant struggle to keep abreast of the vast amounts of new information available, assessing this information, and continuing to gather even more information. Individual's information searching strategies often take considerable time and cause considerable frustration in getting the results wanted. While increasing importance is placed on the quality of documents found on the Internet, learning better search strategies, knowing "hidden" databases, and using reputable sites as portals can increase the success of Internet searchers on the Web. This article provides counselors and educators with suggestions for searching the Internet, including the ERIC system and ERIC database, the ERIC/CASS Virtual Library, the International Career Development Library, and the Cybercounseling and Cyberlearning Web Site. (Contains 15 references.) (GCP)

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The Internet, The Hidden Web, and Useful Web Resources: ERIC, ERIC/CASS, & The Virtual Library

by
Chris Kirkman
Allen Frady
Garry R. Walz

U.S. DEPARTMENT OF EDUCATION
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Chapter Six

The Internet, The Hidden Web, and Useful Web Resources: ERIC, ERIC/CASS, & The Virtual Library

Chris Kirkman, Allen Frady and Garry R. Walz

Introduction/Overview

According to eTForecasts, the number of world-wide Internet users surpassed 665 million in 2002; by 2005, the number of users will extend beyond 1 billion (eTForecasts, 2002). Of the users in the United States, three-quarters use the Internet to search for information at least once a week and spend between 1.5 to 9 hours per week searching (Sullivan, 2001a, 2001b). The term *informavore*, coined by psychologist George Miller in the 1980s, has increasingly been applied to humans in our need for more information.

We are constantly searching for new information, assessing and questioning what we read, and continuing to gather more. Yet, our searching strategies often take us considerable time and cause us considerable frustration in getting the results we want (Sullivan, 2001b). Increasing importance is placed on the quality of documents found on the Internet. Learning better search strategies, knowing "hidden" databases, and using reputable sites as portals can increase the success of Internet searchers on the Web.

The Internet: Just How Big Is It?

The Online Computer Library Center estimates there were 8.7 million websites in 2001; the number of individual web pages calculated at 800 million in 1999 could currently be assumed to be in the billions (Lawrence and Giles, 1999). While the Internet continues to grow each year, calculating the size of the Internet is an inexact science. Websites change, adding new pages or taking down old ones, on a regular basis. The exact number of websites is unknown as varying factors play a role in its growth. Changes in the economy, human interests, and accessibility, among others, alter the rate of new additions to the Web.

The percentage of Internet growth however has declined over the past 5 years (OCLC, 2001). The change in positive growth from 1997 to 1998 was 82%; from 2000 to 2001, the growth change was 18%. Each successive year between 1997 and 2001 showed a decline of the rate of growth signifying a change in importance in our views of the Net. In the late 1990s, the Internet was a place of *quantity*, where now Web users look to the Internet for *quality*. There are expectations that organizations, companies, and universities will have websites, and that these sites will contain accurate and useful information. The importance of quality on the Internet is seen as more users turn there for information. According to a study from The Search Engine Report, the Internet has become the top source for information for Americans (Sullivan, 2001a). U.S. Internet users find the Net more important than television; many now consider the Net as important as books and newspapers (UCLA, 2003). As a primary resource, continuing emphasis will be placed on the quality of information as the growth of new websites slows and the number of new users continues to increase.

On the Internet, one in every twenty-eight pages is a search results page (Alexa Insider, 2000). Searching has become the most popular task online next to checking e-mail. As users turn to the Net for reliable sources, their knowledge of where to look for information, how to use search engines, and how to use creative searching techniques when others methods fail will become increasingly important for continued success online.

Searching the Internet

Search engine size and strength has been an important element of successful searches for quality information. Since 1995, search engines have drastically changed in their capacity to register information and create space for users to "surf." Before 1996, search engines typically cataloged less than one million web pages; currently, Google, one of the top five engines, indexes over 3 billion pages. With this data, a user's knowledge of searching

is more vital than ever. Some basics that can help are:

Search Engines

A search engine is a program that searches for specific keywords on Web pages. With proprietary algorithms for each company, search engines find keywords, create indices, and, ideally, return the most relevant documents to the user. Knowing keywords and terms are important in a search. The top search engines are:

AllTheWeb – http://www.alltheweb.com
Altavista – http://www.altavista.com
America Online – http://www.aol.com
AskJeeves – http://www.askjeeves.com
Excite – http://www.excite.com
Google – http://www.google.com
Infoseek – http://www.infoseek.com
Lycos – http://www.lycos.com
Yahoo – http://www.yahoo.com

Some Strategies

Be As Precise As Possible. With the enormous size of the Internet, a keyword search for the term "career" returns a result of 15.1 million pages on Altavista, 19.4 million pages on Google and 41.4 million pages on Lycos. To wade through 15 million documents would require weeks, defeating the usefulness of the Internet. Good search techniques employ multiple keywords; so instead of using the very general "career," narrow the terms down to more specific language: use "workplace satisfaction" or "career development facilitators guide."

Use Quotation Marks Around Phrases or Words Occurring Consistently Together. The use of quotation marks around words or phrases in a search engine returns results where those words appear in that specific order. For instance, if searching for the ethical standards of online counseling, a search engine will find documents with those words in the page but not necessarily in order or even adjacent to each other. Without quotations, the search engine could find pages having very little to do with the topic as the terms may occur sentences or paragraphs apart. Using quotation marks finds pages with those words in the specified order.

Use + and – Symbols to Narrow Searches. Most search engines utilize the + and – symbols as methods adding terms or subtracting them from a search. (Some engines use alternative symbols or words so it is important to know how your search engine works.) If searching for career development sites that also include a job board (a listing of available jobs), the following search could be used: "career development" + "job board." Or, the opposite could be employed as well: "career development" – "job board" for career development sites that do not have a job board.

The Hidden Web

The best searches reach only 16% of the actual available information on the Internet. The other 84% of the Internet is considered the "hidden Web" (Dahn, 2000). In fact, the hidden Web may be much larger, by millions of documents, than the surface Web (Mardis, 2001). The hidden Web remains obscured from typical search engines (such as those listed above) because the documents reside in "hidden" databases or non-HTML formats. The documents from the hidden Web are made up of highly focused, relevant, quality documents to all areas of interest (Mardis, 2001). The databases tend to be highly focused on a particular subject area, and are administered and maintained by a reputable source.

Finding the "hidden Web" is not always easy. The best results come from the reliable resources within your field. Professional organizations may maintain their own databases (or mini-databases) or will often provide links to them. Within the broad field of education, the ERIC database remains one of the best and biggest of the hidden Web. Over one million abstracted documents lead the user to highly useful and important information, however ERIC remains hidden from typical search engines.

The ERIC System and The ERIC Database

ERIC (Educational Resources Information Center) is a federally-funded database of educational materials.

Sixteen clearinghouses, each organized on a subject-specific educational topic (such as Counseling & Student Services, Urban Education, Elementary and Early Childhood Education, and Information & Technology), contribute to the ERIC database as well as producing books, websites, and other resources relevant to its individual scope and to education. Established in 1966, ERIC has become the primary resource world-wide for locating education-related materials. The ERIC database, cataloging over one million documents, is not searchable from regular search engines such as Yahoo, Google, and Altavista; ERIC is part of the hidden web, a database of quality documents that can be accessed only from select points on the Web.

The world's largest education database, ERIC materials include books, journal articles, presentation papers, research papers, and dissertations, as well as other education-related materials. The database can be searched at no cost via the Internet and on CD-ROM at many libraries and educational resource centers. To search the ERIC database online, visit http://www.eric.ed.gov. If you find that your search is incomplete or you need additional help, ERIC provides free assistance on the Web by the AskERIC service. Go to http://askeric.org, go to Ask An ERIC Expert, state your question, and within two business days you will receive an ERIC search.

The ERIC Clearinghouse on Counseling and Student Services (ERIC/CASS)

The ERIC Clearinghouse on Counseling & Student Services (ERIC/CASS) is one of 16 main clearinghouses in the ERIC system. ERIC/CASS plays many diverse but significant roles. ERIC/CASS produces several major publications on counseling by top authorities in the field each year. The clearinghouse works closely with professional organizations such as the American Counseling Association (ACA), the National Board for Certified Counselors (NBCC), the American School Counselor Association (ASCA), and the National Association of School Psychologists (NASP) to name a few. ERIC/CASS also produces many free publications throughout the year such as ERIC Digests (short papers on issues relevant to the counseling field). Along with these hard-copy publications, ERIC/CASS has been at the forefront in utilizing technology and the Internet to bring more information to the people who need it.

ERIC/CASS on the Internet

When looking for counseling information on the Internet, ERIC/CASS should be the first site you turn to. The ERIC/CASS homepage has links to all the necessary resources within the ERIC system for all of your educational needs. The site, which is easy to navigate, provides lots of free, full-text information, access to publications, and methods of improving your professional development and your personal professional standing.

What's New

The ERIC/CASS *What's New* page is regularly updated providing you with a gateway to new materials added to the various ERIC/CASS sites. You do not have to look far to see what is new! ERIC/CASS aims to provide counselor-relevant materials so that will become a one-stop location for counselors to keep up with the counseling field.

Publications

Both free, full-text documents as well as longer monographs can be found in the *Publications* section of the website. ERIC/CASS digests are listed here in full-text by year of publication and title. Digests are excellent "cliffs notes" to current counseling research keeping you in tune with the counseling world. Digests are freely reproducible and make an excellent source for parent handouts in the school or for dissemination to teachers and administrators. Also, the *Publications* page provides a catalog of ERIC/CASS publications, such as *Counseling Underachievers*, *Proven Strategies for Improving Learning & Achievement*, *Leading and Managing Comprehensive School Guidance Programs*, *Addressing School Violence*, *Career Transitions in Turbulent Times*, and *Cybercounseling & Cyberlearning*. A number of highly useful video tapes are also available.

Submitting Documents to ERIC

Increase your professional visibility and highlight your work by submitting your papers and research to ERIC. The ERIC database actively solicits professional contributions in order to constantly grow and represent the breadth of the field. ERIC has selection criteria followed by each clearinghouse. All work accepted by ERIC

is disseminated internationally through the database. Your work will provide information to other counselors (and future counselors) to better prepare themselves for work in the world of counseling. To submit documents, simply send two hard copies of your work and a signed reproduction release to the acquisitions coordinator at the ERIC/CASS office. Visit the *Submitting Documents* page for more information.

Useful Links

Under *Useful Links*, the Counselor Connection is the perfect source to find many relevant counseling organizations and associations you need as a professional. The Counselor Connection also provides links to subject-specific issues in counseling. This comprehensive list of links connects you to the world of counseling.

The Virtual Library

The ERIC/CASS Virtual Library covers twelve school counseling-relevant issues by offering full-text resources, links, and current information on the topic. The twelve topics are: Testing & Assessment; CyberCounseling & CyberLearning; Helping People to Cope with Trauma, Grief, and Stress; School Violence; Student Achievement; Substance Abuse; Depression & Suicide; Conflict Resolution; Cultural Diversity; Career Development; Bullying in Schools; and Youth Gangs. The Virtual Library was designed with counselors in mind, but also aims to provide information for parents, teachers, administrators and higher education students.

Each library has its own homepage with updated material to point to new research and links to news articles of relevance to the topic. You will find each homepage for a Virtual Library topic a good bookmark for your collection of sites to visit often!

Each library is organized into user-driven subcategories where counselors may choose the "counselor" link and find relevant articles. The subcategories are divided into:

Education Level
- Elementary
- Secondary
- Post-Secondary

Practitioner Role
- Administrators
- Counselors
- Teachers

Each collection is also divided into other topic-relevant categories such as special issues, resources for parents, etc. Within each category, a wealth of full-text information can be found.

The original vision of the Virtual Library was to serve parents and counselors but high demand by the wide scope of ERIC/CASS users made it possible to expand the vision to encompass the interest areas of teachers, administrators, the public, and others invested in educational issues. Recently, categories of research information, an area specifically for research by higher education specialists and professional organizations, has been created for many of the collections in order to provide the newest information for graduate students as well as those professionals driven and interested in the latest numbers generated by the field.

International Career Development Library (ICDL)

A database of career development materials for career counselors, school counselors and career practitioners, the ICDL was created to be a primary resource. The ICDL has over 500 free, full-text documents (many of which are essential materials for counselors) organized in a database with a customizable search engine and a catalog list of each document. The ICDL has been praised by many as a source to turn to first for career information. The scope of the ICDL is useful to practitioners from elementary school counselors to college career counselors and private practice counselors as well as students in the field of careers and career development.

The ICDL is constantly being updated with new material. Through ERIC/CASS's extensive connection to the career development community, a constant flow of new documents enable the ICDL to be a cutting edge, one-of-a-kind library.

CyberCounseling

The Cybercounseling and Cyberlearning web site was designed to be a companion to the *Cybercounseling and Cyberlearning: Strategies and Resources for the Millennium* book produced by John W. Bloom and Garry R. Walz and jointly published by ACA and ERIC/CASS.

The Cybercounseling website provides an online supplement to the book with special chapters and resources that are better suited to being online and available for downloading than adding to the bulk of the printed book. Both the printed and the online sections of the book have been well received and extensively used.

ERIC/CASS has actively worked at the development of the website and it presently far exceeds the original website both in scope and number of entries. It now serves both as an introduction to the use of technology as well as a source of new concepts and resources, e.g. Open Source software.

An important milestone in the website's development was the support extended to ERIC/CASS by ACA and the ACA Foundation. Their support, both professionally and financially, enabled ERIC/CASS to expand the array of features offered by the site. Currently, among its more important functions is that the site serves as a repository for materials generated by the ACA Cyber and Technology Committee.

The Cybercounseling & Cyberlearning Web Site

The web site (http://cybercounsel.uncg.edu) utilizes cutting edge graphics, web-related searches, and easy to use menus in order to facilitate document dissemination to counselors. The Cybercounseling and Cyberlearning web site is regularly being modified to reflect new information as that information becomes available.

The Cybercounseling and Cyberlearning home page contains links to all of the resources offered by the site. The homepage is modified on a bimonthly basis to reflect new items of special interest. New hot topics in technology and counseling are also added so that counselors can stay ahead of the curve in the technology field. Along with a wealth of information, the site provides links to the ACA Technology Committee and other ERIC/CASS web sites.

The *What's New* page is updated on a monthly basis. New documents and links are added with direct links for convenience. Also, all other new items can be found on this page.

The *Resource* page is a collection of full-text documents in sub-divided groups to help the user quickly find the information he/she is looking for. The list includes:

1. **Cyberlearning** - All aspects of learning involving the use of the Internet.

2. **Cyberpractices** - Use of the Internet to carry out specific tasks.

3. **Credentialing** - A means used to document a person having received training and/or demonstrated competence in Cybercounseling.

4. **Research** - Obtaining evidence to support the efficacy of a particular program or practice.

5. **Ethics** - What is ethical and incorporates consensual counseling values.

6. **Career** - Career practices involved in Cybercounseling.

7. **Digital Divide** - A separation between sub-populations based on differential access and use of computers.

8. **Hardware/Software** - Information related to physical computer and technological components and the programs (software) used to direct computer functions.

9. **Issues** - Topics that involve matters that persons view differently.

10. Presentations - Power Points and other forms of presentations on Cybercounseling.

The submission page contains all the information needed to submit documents authored by counselors or others interested in having their works published on the web site. Documents submitted to Cybercounseling are also submitted to the ERIC database as a way to help gain exposure for the author and the author's work.

The main help page is for questions and concerns about the web site or other questions that may exist about ERIC/CASS and other aspects of the ERIC system. Links are provided to search the ERIC database or go to the free AskERIC service where help is available for finding relevant information. There are also links to contact the ERIC/CASS staff.

The Open Source Project Web Site

Open Source software is freely distributed and can be freely modified by anyone. This offers many benefits over proprietary software. Among these benefits are quality, speed, cost, verifiability, and freedom.

Most people already use Open Source software, they just may not be aware they are. Netscape is an Open Source product. Another popular and well-known form of Open Source software is Linux. There are several brands of Linux on the market. The most widely known brands of Linux are Red Hat, Caldera, Suse, and Mandrake to name only a very few. There are various others for word processing and presentations, like StarOffice, and Lon-Capa, a free version of software used to put classes on the web much like the popular software Black Board.

Cybercounseling and Cyberlearning endeavor to incorporate technology into the counseling and educational fields. In order to provide these service tools, software and hardware are needed by both the counselor and client or the student and professor. One group of products known as Open Source contains a host of learning, business applications, and other software.

The Open Source Project home page is the place to learn about information relating to Open Source and how it is being used in the counseling and educational fields. There are various links to other Open Source sites, documented results and a place to go and download free software.

The Open Source Links page is your link to free software and free information on the companies who contribute this software.

Resources

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